

CLAIMS

- 5 *Sub B2/*
- 10 1. A layered filtering structure (10) comprising at least a first layer (12) and a second layer (13) each layer comprising a web of metal fibers which has been sintered, said two layers (12, 13) being in contact with each other, wherein said first layer, most close to the filter inlet side has a porosity below 55 %, and wherein said second layer, closer to the filter outlet side has a porosity which is at least 20 % greater than the porosity of said first layer.
- 15 *Sub A1*
- 20 2. A structure according to claim 1, wherein said second layer has a porosity of at least 80 %.
- 25 3. A structure according to any one of the preceding claims, wherein said first layer comprises metal fibers with a diameter of less than 3 μm and wherein said second layer comprises metal fibers with a diameter of at least three times the diameter of the fibers in the first layer.
- 30 4. A structure according to any one of the preceding claims, wherein said first layer has a weight ranging between 300 g/m² and 600 g/m².
- 5 5. A structure according to any one of the preceding claims, wherein the first layer has at least one even surface.
- 10 6. A structure according to any one of the preceding claims, wherein said structure further comprises a wire net which is fixed to the first layer or to the second layer.
- 15 7. A structure according to any one of claims 1 to 5, wherein said structure is sandwiched between a first wire net (14) and a second wire net (15), said first net (14) being located at the inlet side, said
- Sub B3/*

- 2nd
sub
A1
B3
- second wire net (15) being located at the outlet side, said first wire net having meshes which are smaller than the second wire net and having wires with a diameter which is thicker than the diameter of the wires in the second wire mesh.
- 5
8. A structure according to claim 7, wherein said first wire net (14) is a calandered wire net.
- 9th
A2
- 10 9. A structure according to any one of the preceding claims, wherein said first layer is obtainable by means of a cold isostatic pressing operation.
10. A method of manufacturing a layered filtering structure (10), said method comprising the following steps :
- 15 (a) sintering a web of metal fibers to form a first layer (12) ;
(b) compacting said first layer (12) to a porosity below 55 % ;
(c) providing a web of metal fibers to form a second layer (13) ;
(d) bringing said first compacted layer (12) and said second layer (13) in contact with each other to form a layered assembly ;
20 (e) sintering said layered assembly to form a coherent entity wherein said second layer has a porosity which is at least 20 % higher than the porosity of the first layer.
- 25 11. A method according to claim 10 wherein said compacting is done by means of a cold isostatic pressing operation.

add C²